

WHAT IS CLAIMED IS:

1. A flexible pipe joint joining, in a bendable manner, a first pipe member provided with a partially spherical outer circumferential surface that protrudes outward in radial direction and a second pipe member provided with a partially spherical inner surface that can slide along the partially spherical outer circumferential surface,

wherein a sleeve made of a synthetic resin is inserted and fitted in a state of contact, bridging the inner circumferential surfaces of the two pipe members, the sleeve having a length that covers a cavity portion that opens inward in radial direction at a location where the two pipe members are joined together, and being elastically deformed while substantially maintaining its circular tube shape when following a flexure of the two pipe members.

2. The flexible pipe joint according to claim 1, wherein the sleeve has a length that goes beyond an intersection between a virtually extended surface of the partially spherical outer circumferential surface and the inner circumferential surface of the first pipe member.

3. The flexible pipe joint according to claim 1 or 2, wherein a spherical ring member having a partially spherical outer circumferential surface is installed in the first pipe member such that the spherical ring member can slide within a predetermined range in pipe axis direction, and the sleeve has a length that can cover any cavity portion along an entire telescopic range of the two pipe members.

4. The flexible pipe joint according to claim 1, further comprising a fixing means for preventing relative motion in pipe axis direction between one of the pipe members and the sleeve.

5. The flexible pipe joint according to claim 1, wherein a reinforcement core that suppresses deformation of the sleeve at least at a location that contacts a portion of the inner circumferential surface of the pipe members is inserted and fitted into the sleeve.

6. The flexible pipe joint according to claim 1, wherein the sleeve is made of polyethylene and has the shape of a circular tube, and the sleeve's thickness is in a range of 1.5 mm to 4.0 mm.

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7. The flexible pipe joint according to claim 1, wherein a front end on the insertion side of the inner circumferential surface of the sleeve is provided with a tapered surface whose diameter becomes larger toward the front end.

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8. The flexible pipe joint according to claim 3, wherein the sleeve is provided with a fixing means preventing relative motion in pipe axis direction with respect to one of the pipe members, and a provisional stopping protrusion that, by engaging a depression formed in the inner circumferential surface of the other pipe member, prevents relative movement in pipe axis direction between the two pipe members, and wherein the provisional stopping protrusion is configured such that its provisional stopping can be released by shearing due to an external force in pipe axis direction.

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